

JUN 18 2007

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TO: Commissioner for Patents, Mail Stop Appeal Brief - Patents, Examiner Nathan M. Nutter - United States Patent and Trademark Office

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Application No.: 10/670,043

Inventor(s): Ivano Gagliardi et al.

Filed: September 24, 2003

Docket No.: CM2700L

Confirmation No.: 4999

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1) Appeal Brief (12 pages)

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(6_18_07_FAX-USPTO_CM2700L.doc Revised 11/18/2005) Inf

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/670,043
Inventor(s) : Ivano Gagliardi et al.
Filed : September 24, 2003
Art Unit : 1711
Examiner : Nathan M. Nutter
Docket No. : CM2700L
Confirmation No. : 4999
Customer No. : 27752
Title : LIQUID ABSORBENT THERMOPLASTIC
COMPOSITION COMPRISING SUPERABSORBENT
MATERIAL PARTICLES OF SUBSTANTIALLY
ANGLE-LACKING SHAPE

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

This Brief is filed pursuant to the appeal from the decision communicated in the Office Action mailed on February 2, 2007, in which prosecution was reopened.

A timely Notice of Appeal was filed on April 23, 2007.

REAL PARTY IN INTEREST

The real party in interest is The Procter & Gamble Company of Cincinnati, Ohio.

RELATED APPEALS AND INTERFERENCES

There are no known related appeals, interferences, or judicial proceedings.

STATUS OF CLAIMS

Claims 1-15, 19, and 20 are canceled. Claims 16-18 stand rejected.

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Claims 16-18 are appealed.

A complete copy of the appealed claims is set forth in the Claims Appendix attached herein.

STATUS OF AMENDMENTS

No amendment was filed subsequent to the response filed September 1, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER

A disposable absorbent article is claimed. The disposable absorbent article comprises an absorbent core (see e.g. page 5, lines 20-27). The absorbent core comprises a liquid absorbent thermoplastic composition (see e.g. page 6, lines 16-19). The liquid absorbent thermoplastic composition comprises a water absorbent polymeric base material and particles of superabsorbent material (see e.g. page 6, lines 21-22). Examples of the water absorbent polymeric base material can be found on, for example, page 10, line 27 to page 13, line 19. Examples of the particles of superabsorbent material can be found on, for example, page 8, line 18 to page 10, line 25. The particles of superabsorbent material have a substantially angle-lacking shape (see e.g. Figure 1 and page 7, lines 27-32). The particles of superabsorbent material have an average particle diameter in a dry state of from about 0.1 μm to about 500 μm (see e.g. page 8, lines 4-15).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 16-18 stand rejected under 35 U.S.C. § 112, First Paragraph.

Claims 16-18 stand rejected under 35 U.S.C. § 102(b) over Carlucci et al. (EP 1 138 293).

Claims 16-18 stand rejected under 35 U.S.C. § 103(a) over Soerens et al. (US 6,822,135) in view of Kimura et al. (US 5,026,800).

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Claims 16-18 stand rejected under 35 U.S.C. § 103(a) over Dutkiewicz et al. (US 6,562,742S) in view of Kimura et al. (US 5,026,800).

ARGUMENTS

Rejection of Claims 16-18 under 35 U.S.C. § 112, First Paragraph

Claims 16-18 stand rejected under 35 U.S.C. § 112, First Paragraph. The Applicants respectfully traverse the rejection. The Office Action states that "[t]here is no support for the recitation or for the interpretation of the polymeric base material, which is disclosed in the instant Specification at page 6 (lines 16-22), to be labeled as "a water absorbent polymeric base material." Water absorbent polymeric base materials such as Pebax, Hytrel, and Estane are disclosed on page 29, 30, and 31 of the specification. A general description of them can be found on page 13 of the specification. Therefore, the Applicants respectfully submit that the specification and claims meet the requirements of 35 U.S.C. § 112, First Paragraph. The Applicants respectfully request that the claims be allowed.

Rejection of Claims 16-18 under 35 U.S.C. § 102(b) over Carlucci et al. (EP 1 138 293)

Claims 16-18 stand rejected under 35 U.S.C. § 102(b) over Carlucci et al. (EP 1 138 293). The Applicants respectfully traverse the rejections for three reasons.

First, Carlucci et al., as cited in the Office Action, does not teach an average particle diameter in a dry state from about 0.1 μm to about 500 μm for the superabsorbent material. The Office Action cites to paragraph [0047] of Carlucci et al. for the particle sizes claimed in Claim 16. Paragraph [0047] of Carlucci et al. is related to the thickness of the absorbent core, not the size of the particles of the superabsorbent. Thus, paragraph [0047] is not related to the size of the particles of the superabsorbent and cannot properly supply bases for the rejection. Further, even if the thickness of the absorbent core in Carlucci et al. is mistakenly interpreted as particle size, Claim 16 of the present

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application is limited to a particular range for average particle size. Carlucci et al., as cited, does not state anything with respect to an average dimension for the thickness of the absorbent core.

Second, Carlucci et al., as cited in the Office Action, does not teach a liquid absorbent thermoplastic composition comprising two components: (1) a water absorbent polymeric base material and (2) particles of superabsorbent material. As best understood by the Applicants, page 3, lines 6-17, of the Office Action dated July 3, 2006, does not cite any portion of Carlucci et al. for a liquid absorbent thermoplastic composition comprising a water absorbent polymeric base material and particles of superabsorbent material. The Office Action cites Paragraph [0033] for hydrogels, superabsorbent or hydrocolloid materials added to the fluid storage layer. The Applicants are unable to discern to what portion of Carlucci et al. the Office Action is citing for the polymeric base material or a thermoplastic composition comprising a water absorbent polymeric base material and particles of superabsorbent material in a single composition. The Office Action, page 4, line 6, does refer to polymeric fibers. However, the polymeric fibers and superabsorbent material in Carlucci et al. are not combined into a single liquid absorbent thermoplastic composition. Therefore, Carlucci et al., as best understood by the Applicants and cited in the Office Action, does not teach a liquid absorbent thermoplastic composition comprising a water absorbent polymeric base material and particles of superabsorbent material, as claimed and described on page 6, lines 21-22.

In the Response to Arguments section of the Office Action, the Office Action refers to Paragraph [0015] of Carlucci et al. for polymeric material. The Applicants are unable to discern the relevance of Paragraph [0015] of Carlucci to a water absorbent polymeric material because the cited paragraph teaches a topsheet, backsheet, and absorbent core and is devoid of other information.

Third, Carlucci et al., as cited in the Office Action, does not teach a superabsorbent material having a substantially angle-lacking shape. The Advisory Action, dated September 20, 2006, states "[i]t is submitted that the granular form of the

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superabsorbent as taught at paragraph [0033] would neither have an angular shape, being essentially spherical." Paragraph [0033] of Carlucci et al. teaches "absorbent gelling materials . . . in a granular form of discrete, non-fibrous particles." Carlucci et al., as cited in the Office Action, does not teach that granular form of the absorbent gelling materials is substantially angle-lacking shape, as claimed in Claim 16 of the present application. Furthermore, the Office Action and Advisory Action do not demonstrate that the granules are necessarily angle-lacking in shape. The Response to Arguments section states that the Applicants have not provided evidence to support that a granular particle is not a substantially angle-lacking shape. The Office Action provides no basis for the statement that a granular particle is angle-lacking, as in Claim 16 of the present application.

Based on the above, the Applicants submit that Claim 16 of the present application is allowable over Carlucci et al. under 35 U.S.C. § 102(b). Because Claims 17 and 18 depend upon Claim 16, the Applicants submit that Claims 17 and 18 are also allowable over Carlucci et al. The Applicants respectfully request that Claims 16-18 be allowed on appeal.

Rejection of Claims 16-18 Under 35 U.S.C. § 103(a) over Soerens et al. (US 6,822,135) in View of Kimura et al. (US 5,026,800)

Claims 16-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Soerens et al. in view of Kimura et al. The Applicants respectfully traverse the rejection because the references fail to establish a *prima facie* case of obviousness. The references, when combined, fail to teach or suggest all of the claim limitations of Claims 16-18. Furthermore, the references, as cited, teach away from the claims of the present application.

The Applicants submit that the final Office Action fails to identify portions of Soerens et al. or Kimura et al. teaching or suggesting a thermoplastic composition comprising a water absorbent polymeric base material, as claimed in the present application. Soerens et al. relates to providing a "fluid storage material, and a method of

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making such fluid storage material wherein particles remain intact on the material even while in a swollen or wet condition.” Soerens et al., Column 5, Line 65 to Column 6, Line 2 and Column 3, Lines 49-55. Although the title of Soerens et al. is descriptive of a crosslinkable binder composition, Soerens et al. further teaches that the crosslinkable binder composition is crosslinked to achieve the desired result. Soerens et al. states at Column 5, Lines 44-46 that “[a]fter the particles in solution have been applied to the substrate or release surface, crosslinking of the binder is then induced.” (emphasis added). In the portion of Soerens et al. cited in the final Office Action, Soerens et al. describes the binder material as a “crosslinked polymer.” Id. at Column 4, Lines 21-26. Example 3 states “[t]his example demonstrates that the crosslinked binder of this invention significantly improves the attachment of the SAP to a substrate, even when exposed to a large excess of fluid.” Id. at Column 27, Lines 30-33 (emphasis added).

A crosslinked binder composition cannot be considered to be thermoplastic due to the presence of the crosslinks between the polymer chains. Crosslinked materials, like those in Soerens et al., are known as thermosets, not thermoplastics. Cross-linking is a process by which a resin is made to be a thermoset. Claim 16 of the present application claims a thermoplastic composition.

There is no suggestion or motivation in Soerens et al. to use a thermoplastic binder material because Soerens et al. teaches that for the binder to perform satisfactorily for the intended purpose, the binder material needs to be crosslinked. Under *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.

Furthermore, the principle of operation of the binder in Soerens et al. is that crosslinking the binder provides for the desired binding capability. Under *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959), if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being

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modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.

There is also no reasonable expectation of success to modify Soerens et al. to use a thermoplastic binder material. Soerens et al., as cited, teaches that the desired binding capability is provided by crosslinking the binder material. Under *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986), the prior art cannot be modified or combined to reject claims as *prima facie* obvious if there is no reasonable expectation of success.

Adding Kimura et al. does not make up for the deficiency of Soerens et al. The portions of Kimura et al. cited in the final Office Action also do not teach or suggest a thermoplastic composition comprising a water soluble polymeric base material, as claimed in the present application. Therefore, the final Office Action fails to establish a *prima facie* case of obviousness.

The references, as cited, also teach away from the claims of the present application. As discussed above, Soerens et al. teaches that to achieve a binder wherein particles remain intact on the material, even while in a swollen or wet condition, the binder material needs to be crosslinked. The Examples of Soerens et al. also teach that a crosslinked binder provides the desired result. For example, Example 3 states "[t]his example demonstrates that the crosslinked binder of this invention significantly improves the attachment of the SAP to a substrate, even when exposed to a large excess of fluid." Soerens et al. at Column 27, Lines 30-33(emphasis added). Example 1 states "the use of crosslinked binder to secure SAP to the paper towel provides an absorbent web with good fluid retention capability." Id. at Column 22, Lines 61-63. Example 2 reports that a crosslinked binder can secure the swollen SAP in place after absorbing fluid. Id. at Column 24, Lines 12-15. As discussed above, crosslinked materials are thermosets, not thermoplastics. Kimura et al., as cited, does not provide any teaching to make up for the deficiency of Soerens et al. Therefore, Soerens et al. in view of Kimura et al. teaches away from the claims of the present application.

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Based on the above, the Applicants submit that Claim 16 of the present application is allowable over Soerens et al. in view of Kimura et al. Because Claims 17 and 18 depend upon Claim 16, the Applicants submit that Claims 17 and 18 are also allowable over Soerens et al. in view of Kimura et al. The Applicants respectfully request that Claims 16-18 be allowed on appeal.

Rejection of Claims 16-18 Under 35 U.S.C. § 103(a) Over Dutkiewicz et al. (US 6,562,742) in View of Kimura et al. (US 5,026,800)

Claims 16-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dutkiewicz et al. in view of Kimura et al. The Applicants respectfully traverse the rejection because the references fail to establish a *prima facie* case of obviousness because the references, when combined, fail to teach or suggest all of the claim limitations of Claims 16-18.

Dutkiewicz et al. and Kimura et al., as cited in the final Office Action, do not teach or suggest particles of superabsorbent material having an average diameter in the dry state of 0.1 μm to about 500 μm .

Furthermore, Dutkiewicz et al. and Kimura et al., as cited in the final Office Action, do not teach or suggest a liquid absorbent thermoplastic composition comprising a water absorbent polymeric base material and particles of superabsorbent material. The Office Action cites Dutkiewicz et al. for "binder/s and superabsorbent particles." In Dutkiewicz et al., the binder and superabsorbent particles are separate elements. Dutkiewicz et al., column 6, lines 5-7, states that "the binder may optionally bind fibers and SAP particles to each other." Thus, the binder and superabsorbent particles are not arranged as required in Claim 16. The Applicants submit that Dutkiewicz et al., as cited in the Office Action, does not teach or suggest that the water absorbent polymeric base material and particles of superabsorbent material are combined to form the liquid absorbent thermoplastic composition, as claimed in the present application. Thus, the references when combined, as cited, do not teach or suggest each and every element of Claim 16 of the application.

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In light of the above, the Applicants submit that Dutkiewicz et al. in view of Kimura et al. fails to establish a *prima facie* case of obviousness. Therefore, the Applicants submit that Claim 16 of the present application is allowable over Dutkiewicz et al. in view of Kimura et al.

Because Claims 17 and 18 depend upon Claim 16, the Applicants submit that Claims 17 and 18 are also allowable over Dutkiewicz et al. in view of Kimura et al. The Applicants respectfully request that Claims 16-18 be allowed on appeal.

SUMMARY

In view of all of the above, the Applicants respectfully submit that Claims 16-18 of the present application are allowable.

Respectfully submitted,
THE PROCTER & GAMBLE COMPANY


Signature

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Revised 04/26/2006

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CLAIMS APPENDIX

Claims 1-15 (canceled)

Claim 16 (previously presented): A disposable absorbent article comprising an absorbent core, said absorbent core comprises a liquid absorbent thermoplastic composition comprising

- a water absorbent polymeric base material, and
- particles of superabsorbent material;

wherein said particles of superabsorbent material have a substantially angle-lacking shape and said particles of superabsorbent material have an average particle diameter in dry state of from about 0.1 μm to about 500 μm .

Claim 17 (previously presented) The disposable absorbent article of claim 16, wherein said article has in at least one region a transparency value of at least 50%.

Claim 18 (original) The disposable absorbent article of claim 16, comprising a topsheet and a backsheet, said absorbent core being positioned between said topsheet and said backsheet, wherein said topsheet, said backsheet and said absorbent core are made of substantially transparent material.

Claims 19-20 (canceled)

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None